

REMARKS

By this Amendment, Applicant amends claims 1, 3, 5, 16, 28, 31, 32, 34, and 38-40.

Applicant also cancels claims 6, 29, 35-37, 41, 48-50, and 53 without prejudice or disclaimer.

Therefore, claims 1-5, 7-28, 30-34, 38-40, 42-47, 51, 52, and 54-60 are all the claims pending in the application, of which claims 7-15, 17-27, 42-47, 51, 52, and 54-60 are withdrawn.

Claim Rejections Under 35 U.S.C. § 102

Claims 1, 2, 28-30, 38, 48, and 49 are rejected under 35 U.S.C. §102(b) as being anticipated by Wu et al. (U.S. Patent 6,332,077, hereinafter “Wu”).

Claim 1 is directed to a handoff method performed by a mobile station in a wireless local area network, and recites, *inter alia*:

outputting a handoff alert message to a present access point of the mobile station;

receiving channel information on access points in an extended service set from the present access point of the mobile station in response to the handoff alert message;

scanning, by the mobile station, channels on the access points by using the channel information to select a new access point of the mobile station, wherein the scanning channels comprises transmitting a probe request message to the access points using the channel information and receiving a response message in response to the probe request message; and

selecting an access point with a strongest signal as the new access point according to a scanning result.

Applicant respectfully submits that the information used to select a new access point recited in claim 1 is totally different from the information used to select a new access point in Wu. Specifically, in the Office Action, the Examiner asserts that Wu discloses a mobile station receiving information on neighboring access points from the current associated access point. However, claim 1 recites “receiving channel information,” while Wu receives “hopping information.” For example, the hopping information referred in the frequency hopping spread

spectrum (FHSS) of Wu is a pattern of 1-3-5-7-9-...-75-775-79. On the other hand, Applicant respectfully submits that the skilled artisan would understand that “channel information” is a physical channel, that is for example, a fixed frequency band, such as 2.400 GHz, 2.440 GHz, and 2.480 GHz.

Exemplary embodiments discussed in the specification, and similarly recited in claim 1, use channel information related to access points in the extended service set, received from the present access point of a mobile station, to select a new access point of the mobile station. However, in Wu, the information related to the neighboring access points is not “channel information,” but rather Wu uses the “hopping information,” as discussed above. Accordingly, Applicant respectfully submits that Wu fails to teach or suggest the “receiving channel information” recited in claim 1.

Further, claim 1 recites, “receiving channel information on access points in an extended service set from the present access point of the mobile station *in response to the handoff alert message.*” In contrast, the mobile station of Wu receives the hopping information when the current access point associates with the mobile station. Specifically, column 5, lines 21 to 23, of Wu discloses “after being associated with an AP, STA has gotten the hopping information.” Since the AP information can be changed when handoff occurs, according to Wu, reliability of the AP information is deteriorated. In exemplary embodiments in the application specification, however, the mobile station receives the AP information during handoff, so the most recent AP information is received. Consequently, reliable AP information can be improved.

Still further, Applicant respectfully submits that Wu does not disclose or suggest the claimed channel “scanning.” Exemplary embodiments discussed in the specification use an Active Scanning method that actively transmits a message and receives a response message from

the AP. On the other hand, Wu uses a Passive Scanning method that searches for the best AP using the information contained in the Beacon frame received from the neighboring AP. In the exemplary embodiments, and similarly recited in claim 1, the channel information related to the access points is received and channels are scanned using the channel information to select a new access point. The channel “scanning” of claim 1 scans the neighboring AP using the “channel information” and selects an AP that has the strongest signal intensity according to the result of scanning. The scanning is made as the scanning portion transmits a probe request message using the channel information and receives “a response message in response to the probe request message.” Although, column 4, lines 27 to 29, of Wu discloses “During roaming, STA could choose the best AP to associate with without the need to scan all the channels,” and while this might appear to be similar to the method of claim 1, it can be seen from the forgoing discussion that the method of claim 1 and Wu are totally different from each other. Moreover, in columns 5 and 6 of Wu (“3.4 Roaming”), it is described how the station determines the best AP for roaming, among the neighboring APs, by sniffing the beacon from the neighboring APs. When it is the time for roaming, an AP having the best RSSI value is selected, using the RSSI result contained in a beacon frame obtained from the last four sniffings. The RSSI value of the Beacon is used as an indicator of a relative distance between the station and the neighboring AP. Clearly, this method is not a channel scanning method, and does not teach or suggest the claimed “scanning.”

Accordingly, Applicant respectfully submits that Wu fails to teach or suggest the combination of features recited in claim 1. Therefore, Applicant respectfully submits that claim 1 and its dependent claims would not have been anticipated by Wu for at least these reasons.

To the extent independent claims 28 and 38 recite subject matters similar to claim 1, Applicant respectfully submits that claims 28, 38, and their dependent claims also would not have been anticipated by Wu for at least the same reasons analogous to those set forth above regarding claim 1.

Claims 5, 16, and 40 are rejected under 35 U.S.C. §102(e) as being anticipated by Ala-Laurila et al. (U.S. Patent 6,587,680, hereinafter “Ala-Laurila”).

Claims 5 and 16 depends on claim 1 and incorporate all the features of claim 1. Claim 40 depends on claim 28 and incorporate all the features of claim 28. Applicant respectfully submits that Ala-Laurila fails to cure the deficient disclosure of Wu, and therefore, even if Wu and Ala-Laurila could have somehow been combined, the combination of Wu and Ala-Laurila would still fail to teach or suggest the combinations of features recited in claims 1 and 28, and hence claims 5, 16, and 40, as discussed above. Accordingly, Applicant respectfully submits that claims 5, 16, and 40 would not have been rendered unpatentable by the combination of Wu and Ala-Laurila for at least these reasons.

Claim Rejections Under 35 U.S.C. § 103

Claims 3, 4, 31-35, 39, and 50 are rejected under 35 U.S.C. §103(a) as being unpatentable over Wu in view of Ala-Laurila.

Claims 3, 4, 31-34, and 39, in one form or another, depend from claims 1, 28 and 38. As discussed above, even if Wu and Ala-Laurila could have somehow been combined, the combination of Wu and Ala-Laurila would still fail to teach or suggest the combinations of features recited in claims 1, 28, and 38. Accordingly, Applicant respectfully submits that claims 3, 4, 31-34, and 39 would not have been rendered unpatentable by the combination of Wu and Ala-Laurila for at least these reasons.

The rejection of claims 35 and 50 is moot, as claims 35 and 50 are canceled.

Claims 6 and 41 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ala-Laurila in view of Wu.

The rejection of claims 6 and 41 is moot, as claims 6 and 41 are canceled.

Claims 36 and 37 are rejected under 35 U.S.C. §103(a) as being unpatentable over Wu in view of Rom (U.S. Patent 6,360,264).

The rejection of claims 36 and 37 is moot, as claims 36 and 37 are canceled.

Claim 53 is rejected under 35 U.S.C. §103(a) as being obvious over Wu in view of Ala-Laurila.

The rejection of claim 53 is moot, as claim 53 is canceled.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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